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PII:	S0031-0182(17)31254-3
DOI:	doi:10.1016/j.palaeo.2018.04.007
Reference:	PALAEO 8732
To appear in:	Palaeogeography, Palaeoclimatology, Palaeoecology
Received date:	14 December 2017
Revised date:	6 April 2018
Accepted date:	7 April 2018

Please cite this article as: E.S. Rego, L. Jovane, J.R. Hein, L.G. Sant'Anna, M. Giorgioni, D. Rodelli, E. Özcan, Mineralogical evidence for warm and dry climatic conditions in the Neo-Tethys (eastern Turkey) during the middle Eocene. The address for the corresponding author was captured as affiliation for all authors. Please check if appropriate. Palaeo(2018), doi:10.1016/j.palaeo.2018.04.007

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Mineralogical evidence for warm and dry climatic conditions in the

Neo-Tethys (eastern Turkey) during the middle Eocene

Rego, E.S. ^{1*}; Jovane, L.¹; Hein, J.R.²; Sant'Anna, L. G.³; Giorgioni, M^{1,5}; Rodelli, D.¹; Özcan, E.⁴

¹Instituto Oceanográfico da Universidade de São Paulo, São Paulo 05508-120, Brazil.
²United States Geological Survey, Santa Cruz, California, 95060, USA.
³Escola de Artes, Ciências e Humanidades and Instituto de Energia e Ambiente, Universidade de São Paulo, São Paulo 03828-000, Brazil.
⁴Faculty of Mines, Department of Geological Engineering, İstanbul Technical University (ITU), Maslak, 34469, İstanbul, Turkey.
⁵Instituto de Geociências da Universidade de Brasília, Brasília (DF) 70910-900, Brazil.

*Corresponding author: Eric S. Rego (eric.oc.geo@gmail.com)

Abstract

Minerals in stratigraphic sections are valuable tools for reconstructing past environmental conditions. Given the state of preservation of clay minerals, it is possible to determine under what conditions they formed, which provides clues about continental weathering (inherited minerals) and geochemical conditions in the water column or pore waters (neoformed or transformed) of the sedimentary environment. This study presents new mineralogical and chemical data from the Baskil section, a well-preserved middle Eocene Neo-Tethys sequence from eastern Turkey. Greater terrigenous input is marked by the increase of silicate minerals (e.g. phyllosilicates, quartz, and albite) in the section from 40.5 to 40 Ma, which diluted the

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